200100002

THE UNIVERD STATES OF AVIETICA

<u>to all to whom these presents shall come:</u> The J.C. Robinson Seed Company

MACCES, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITIORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN SOLUTION OF THE PLANT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY SECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

CORN, FIELD

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In Vestimonn Murrent, I have hereunto set my hand and caused the seal of the Mant Unriety Protection Office to be affixed at the City of Washington, D.C. this tenth day of March, in the year two thousand three.

Allast:

Gol m John L

Commissioner Plant Variety Protection Office Agricultural Marketing Service Secretary of

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9. ☑ Filing and Examination Fee (\$2,450), made payable to Treasurer of the United States" (Mail to the Plant Variety Protection Office) 22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U.S. OR OTHER COUNTRIES? ☐ YES ☐ NO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES (Please use space indicated on reverse.) 24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate. The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties. SIGNATURE OF OWNER NAME (Please print or type) The J. C. Robinson Seed Company DATE CAPACITY OR TITLE DATE Foundation Seed Manager	verification that tissue culture will be de					
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PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? OR OTHER COUNTRIES? OR OTHER COUNTRIES? OR OTHER COUNTRY SEED SOLD, DISPOSED OF, TRANSFERRED, OR USE DIN THE U.S. OR OTHER COUNTRY SEED SOLD, DISPOSED OF, TRANSFERRED, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES (Please use space indicated on reverse.) 24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate. The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties. SIGNATURE OF OWNER NAME (Please print or type) Warren L. Anthony CAPACITY OR TITLE ABUNDANCE Manager CAPACITY OR TITLE Foundation Seed Manager FROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? NO IF YES NO IF YES NO IF YES NO IF YES NUMBER OF ISUANCE AND ASSIGNED REFERENCE NUMBER. (Please print or reverse.) IF YES, GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please print or reverse.) IF YES NUMBER. (Please print or full in accordance with such regulations and will be replenished upon request in accordance with such regulations and will be replenished upon request in accordance with such regulations and will be replenished upon request in accordance with such regulations and will be replenished upon request in accordance with such regulations and will be replenished upon request in accordance with such regulations and will be replenished upon request in accordance with such regulations and will be replenished u	(Mail to the Plant Variety Protection Off	ice)				
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CAPACITY OR TITLE Laundation Seed Man Cleg, 7, 2006 Foundation Seed Manager DATE Leg, 7, 2006	, , , ,	[]	NAME (Please print or type)			
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The water age.	CAPACITY OR TITLE	1.				
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INSTRUCTIONS

iENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), **ALL** of the following items must be **received** in the PVPO: (1) Completed application form igned by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds f each line necessary to **reproduce** the variety, or for tuber reproduced varieties verification that a viable (*in the sense that it will reproduce an entire plant*) tissue culture will be eposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$2,450 (\$300 filing fee and \$2,150 examination fee), payable to "Treasurer of the Inited States" (*See Section 97.6 of the Regulations and Rules of Practice.*) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as nifiled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 500, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Letain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and ated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount f \$300 for issuance of the certificates will be issued to owner, not licensee or agent

Plant Variety Protection Office Telephone: (301)504-5518 Fax: (301)504-5291

Homepage: http://www.ams.usda.gov/science/pvp.htm

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- 8a. Give:
- (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
- (2) the details of subsequent stages of selection and multiplication;
- (3) evidence of uniformity and stability; and
- (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 8b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
 - (1) identify these varieties and state all difference objectively;
 - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
 - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 8c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 8d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 18e, Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
- 19. If "Yes" is specified (seed of this variety be sold by variety name only, as a class of certified seed), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
- 20. See Section 83 of the Act for the Contents and Term of Plant Variety Protection.
- 21. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
- 22. See Section 5.5 of the Act for instructions on claiming the benefit of earlier filing date.
- 21. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)

No Limit

- 22. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested naterial) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)
- 23. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by ntellectual property right (Plant Breeder's Right, or Patent).)

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filling a change of address. The fee for filling a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.131, 97.175(h) of the Regulations and Rules of Practice.)

To avoid conflict with other variety names in use, the applicant must check the variety names proposed by contacting: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center—East, Beltsville, MD 20705. Telephone: (301)504-8089.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Officer, OIRM, AG Box 7630, Jamie L. Whitten Building, Washington, D.C. 20250. When replying, refer to OMB No. 0581-0055 and form number in your letter. Under the PRA of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

The U. S. Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and martial or familial status. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (braille, large print, audiotape, etc.) should contact USDA Office of Communications at (202)720-2791.To file a complaint, write secretary of Agriculture, Washington D.C. 20250,or call (202)720-7327 (voice) or (202)720-1127 (TDD). USDA is an equal opportunity employer.

Origin and Breeding History of Inbred NR401

Exhibit A:

NR401 is a corn inbred line developed from selfing the F1 generation of commercial hybrid Pioneer Brand 3751. A standard pedigree ear-row method of breeding was used. Selfing and selection were conducted for six generations in the development of NR401. The selection criteria used during the development of NR401 were: good stand establishment; silking and pollen shedding ability; disease tolerance; stay green appearance during senescence; stalk and root strength; and seed quality. Testcrosses with unrelated inbred lines were made and evaluated over multiple locations and years.

Pioneer 3751 is a hybrid seed corn variety that is marketed in the upper midwest by Pioneer Hi-Bred International headquartered in Johnston, IA.

NR401 has shown uniformity and stability for all traits as described in Exhibit C- "Objective Description of Variety". It has been self-pollinated and ear-rowed a sufficient number of generations, with careful attention given to uniformity of plant type to ensure homozygosity and phenotypic purity. Several S5 ear rows were grown in Estherville, IA during the summer of 1997. A uniform S5 was selected and several S6 progeny were then grown in Molokai, HA during the winter of 1997-1998. These ear rows were evaluated to assure they were uniform and identical for phenotype. The S7 seed harvested from Hawaii was bulked and grown in a line increase isolation at Waterloo, NE during the summer of 1998. The 1998 increase was observed by The J.C. Robinson foundation manager who confirmed the uniformity of the inbred line.

No variant traits have been observed or are expected in NR401.

Development History of NR401:

Location / Season / Year:	Inbreeding Level:
Estherville, IA / Summer/1993	S0 self
Molokai, HA / Winter/ 1993-94	S1 self and select
Estherville, IA / Summer/ 1994	S2 self and select
Estherville, IA / Summer/ 1995	S3 self and select
Estherville, IA / Summer/ 1996	S4 self and select
Estherville, IA / Summer/ 1997	S5 self and select
Molokai, HA / Winter/ 1997-98	S6 ear row and initial bulk
Waterloo, NE / Summer/ 1998	initial bulk grown in an open pollinated foundation increase

Statement of Distinctness for Inbred NR401

Exhibit B:

NR401 is most similar to A619, however, there are distinguishing differences between the two inbreds. Fifteen plants of the two inbreds were compared in side by side plots and measurements determined differences in leaf, tassel, cob, and kernel characteristics. length of the ear node leaf for NR401 was 67.3 cm (standard deviation 2.6 cm) and that of A619 was 54.4 cm (standard deviation 2.5 cm). Tassel length of NR401 was 48.4 cm (standard deviation 3.4 cm) and that of A619 was 36.8 cm (standard deviation 1.63 cm). Anthers of NR401 are red colored whereas those of A619 are yellow. The cob color of NR401 is red and that of A619 is white. When using the Munsell Color Charts for Plant Tissues as a reference, the anther color of NR401 would be classified as 2.5R 4/6 while that of A619 would be classified as 5Y 8/8. The cob color of NR401 would be classified as 10R 4/8 and that of A619 is white (5Y9/1). A measurement of dried kernel characteristics found that NR113 had 71.2% round kernels (standard deviation 3.3%) and that of A619 was found to be 51.3% (standard deviation 2.9%).

The following traits are highly significant at the 1% level (Student's t-Test procedure).

	NR	401	A61	19			÷ .
		 .		<u></u>	Mean		
Trait	N	Mean	N	Mean	Diff	t-Value	Prob
Leaf Width	15	9.3	15	7.0	2.3	10.89	0.0000
Leaf Length	15	67.3	15	54.4	12.9	13.78	0.0000
Leaf Number	15	4.7	15	5.1	-0.5	-3.00	0.0060
Tassel Length	15	48.4	15	36.8	11.4	11.39	0.0000
Ear Length	15	14.5	15	10.9	3.6	5.63	0.0000
Ear Diameter	15	37.4	15	40.7	-3.3	-3.76	0.0010
Kernel Thickness	15	4.8	15	4.3	0.5	2.79	0.0095

United States Department of Agriculture, Agricultural Marketing Service Science Division, Plant Variety Protection Office National Agricultural Library Building, Room 500 Beltsville, MD 20705

OBJECTIVE DESCRIPTION OF VARIETY CORN (Zea mays L.)

Name of Applicant(s) The J. C. Robinson Seed Company	Variety Seed Source		Variety Name or Tempor	ary Designation
The J. C. Robinson Seed Company			NR401	
Address (Street & No., or R.F.D. No., City, State, Zip Code and Country)			FOR OFFICIAL USE	_
100 J. C. Robinson Blvd PO Box A			PVPO Number	
Waterloo, Ne 68069				
Waterioo, Ne ooooo			200100	0002
Place the appropriate number that describes the varietal characters typical of necessary. Completeness should be striven for to establish an adequate varietand must be completed.	this inbred variety in the spaces ety description. Traits designated	below. Right justify whole number a "" are considered neces	bers by adding leading zer	oes if
COLOR CHOICES (Use in conjunction with Munsell color code to describe a	Il color choices: describe #25 an	d #26 in Comments section):		
01 = Light Green 06 = Pale Yellow 11	= Pink	16 = Pale Purple	21 = Buff	
02 = Medium Green 07 = Yellow 12	! = Light Red	17 = Purple	22 = Tan	
-	= Cherry Red	18 = Colorless	23 = Brown	
•	= Red	19 = White	24 = Bronze	
05 = Green-Yellow 10 = Pink-Orange 15	= Red & White	20 = White Capped	25 = Variegated (•
			26 = Other (Desc	ribe)
STANDARD INBRED CHOICES (Use the most similar (in background and in	• •	isons based on grow-out trial	•	
Yellow Dent Families:	Yellow Dent (Unrelated):		Sweet Corn:	
Family Members	Co109 ND246	(C13, lowa5125, P39, 21	32
B14 CM105, A632, B64, B68	Oh7, T232	D		
B37 B37, B76, H84	W117 W153R	•	corn:	-044
B73 N192, A679,B73, NC268	W182BN	•	SG1533, 4722, HP301, HP	/211
C103 Mo17, Va102, Va35, A682	Mileta Dank	Piece		
Oh43 A619, MS71, H99, Va26	White Dent:	•	ecorn:	
	Cl66, H105, Ky228	· · · · · · · · · · · · · · · · · · ·	Mo15W, Mo16W, Mo24W	
TYPE: (describe intermediate types in Comments Section)		Standard Inbred Name A6	10	
*2 1=Sweet 2=Dent 3=Flint 4=Flour 5=Pop 6=Ornamen	tal 7≃Pipecorn	2	13	
2. REGION WHERE DEVELOPED IN THE U.S.A.:		Standard Seed Source		
*2 1=Northwest 2=Northcentral 3=Northeast 4=Southeast 5=South	central			
6=Southwest 7=Other		2	•	
3. MATURITY (In Region Best Adaptability: show Heat unit formula in "Com	ments" section):		· · · · · · · · · · · · · · · · · · ·	<u> </u>
DAYS HEAT UNITS		DAYS	HEAT UNITS	
• <u>0</u> <u>8</u> <u>4</u> <u>1</u> <u>4</u> <u>0</u> <u>8</u> . <u>0</u> From emergence to 50%	•	079	<u>1314.0</u>	
* <u>0 8 3</u> <u>1 3 8 8.0</u> From emergence to 50%	of plants in pollen	<u>078</u>	<u>1 2 8 9.0</u>	
0 0 2 0 4 7.0 From 10% to 90% poller	shed	<u>0 0 4</u>	<u>0 0 7 2.4</u>	
* From 50% silk to optimum edible quality				
From 50% silk to harvest at 25% moisture				
4. PLANT: Standard Deviation	n Sample Size		Standard Deviation	Sample Size
* <u>1</u> <u>8</u> <u>6.8</u> cm Plant Height (to tassel tip) <u>9.05</u>	<u>15</u>	155.6	9.52	<u>15</u>
* <u>0 5 1.8</u> cm Ear Height (to base of top ear node) <u>6.5</u>	<u>15</u> ·	<u>0 3 1.3</u>	<u>4.86</u>	<u>15</u>
<u>0 1 4.1</u> Cm Length of Top Ear Internode <u>.95</u>	<u>15</u>	<u>0 1 1.9</u>	<u>1.05</u>	<u>15</u>
<u>0.0</u> Average Number of Tillers <u>0</u> <u>15</u>		<u>0 0 0.0</u>	<u>o</u>	<u>15</u>
* 1.3 Average Number of Ears per Stalk .45 15		<u>0 0 1.0</u>	<u>o</u>	<u>15</u>
3 Anthocyanin of Brace Roots: 1=Absent 2=Faint 3=Mode	<u>1</u> .			
Application Variety Data	Standard Inbred Data			

Appli	ication Vari	ety Data	•	Page 2	Standard Inbred Data		
· · ·	lcation vari Leaf:		andard Deviation	Sample Size	Standard Indied Data	Standard Deviation S	Sample Size
	сеа: <u>0 0 9.3</u>	cm Width of Ear Node Leaf	.56	15	<u>0 0 7.0</u>	.54	15
	0 6 7.3	cm Length of Ear Node Leaf	2.6	<u>15</u>	0544	<u>2.5</u>	<u></u> 15
*	<u>05</u>	Number of leaves above top ear	<u>.48</u>	<u>15</u>	05	<u>35</u>	<u> 15</u>
	<u>016</u>	Degrees Leaf Angle	<u>2.2</u>	<u>15</u>	017	<u>2.8</u>	<u>15</u>
	<u> </u>	(measure from 2 nd leaf above ear at ar				<u></u>	
*	<u>03</u>	Leaf Color (Munsell code <u>5GY3/4</u>)		,	03 (Munsell code 2	7.5GY4/4)	
	<u>4</u>	Leaf Sheath Pubescence (Rate on sca	ale from 1=none to	9=like peach fuzz)	<u>2</u>	•	
	<u>3</u>	Marginal Waves (Rate on scale from	1=none to 9=many)	<u>7</u>		
	<u>3</u>	Longitudinal Creases (Rate on scale	from 1=none to 9=r	many)	4		
6.	Tassel:	Sta	andard Deviation	Sample Size		Standard Deviation S	Sample Size
*	<u>0 8</u>	Number of primary Lateral Branches	<u>1.26</u>	<u>15</u>	<u>0 5</u>	<u>.88</u>	<u>15</u>
	<u>014</u>	Branch Angle from Central Spike	<u>2.97</u>	<u>15</u>	031	<u>5.1</u>	<u>15</u>
*	<u>4 8.4</u>	cm Tassel Length	<u>3.4</u>	<u>15</u>	<u>3 6.8</u>	<u>1.63</u>	<u>15</u>
		(from top leaf collar to tassel tip)			·		
	<u>7</u>	Pollen Shed (Rate on scale from 0=	male sterile to 9=h	neavy shed)	7		
	<u>14</u>	Anther Color (Munsell code 2.5R4/6)	•		07 (Munsell code	5 <u>Y8/8</u>)	•
	<u>0 2</u>	Glume Color (Munsell code 5GY5/6)			02 (Munsell code	5GY6/4)	
	1	Bar Glumes (Glume Bands) 1 = Abse	ent 2 = Present		1		
7a. l	EAR (Uni	husked data):					
*	<u>0 5</u>	Silk Color (3 days after emergence) (M	funsell code 2.5Y8	<u>8/6</u>)	06 (Munsell code	2.5GY8/10)	
	<u>0 2</u>	Fresh Husk Color (25 days after 50%	silking)(Munsell cod	ie <u>5GY5/6</u>)	02 (Munsell code 5	GY6/10)	
	<u>21</u>	Dry Husk Color (65 days after 50% sill	king) (Munsell code	2.5Y8/3)	21 (Munsell code 2	.5Y8/3)	
*	1	Position of Ear at Dry Husk Stage: 1=	=Upright 2=Horizor	ntal 3=Pendent	2		
	<u>7</u>	Husk Tightness (Rate on scale from	1=Very loose to 9	=Very tight	1		
	2	Husk Extension (at harvest): 1=Short	t (ears exposed) 2=	=Medium (<8 cm)	2		
		3=Long (8-10 cm beyo	nd ear tip) 4=Very	Long (>10 cm)			
7b. l	EAR (Hu	sked Ear Data): Sta	andard Deviation	Sample Size		Standard Deviation	Sample Size
*	<u>1 4.5</u>	cm Ear Length	<u>1.39</u>	<u>15</u>	<u>1 0.9</u>	<u>2.07</u>	<u>15</u>
*	<u>3 7.4</u>	mm Ear Diameter at mid-point	<u>2.2</u>	<u>15</u>	<u>4 0.7</u>	<u>2.6</u>	<u>15</u>
:	<u>1 0 2.6</u>	Gm Ear Weight	<u>22.5</u>	<u>15</u>	064.0	<u>13.5</u>	<u>15</u>
*	<u>14</u>	Number of Kernel Rows	<u>1.2</u>	<u>15</u>	14	<u>1.4</u>	<u>15</u>
	1	Kernel Rows: 1=Indistinct 2=Distinct			2		
	<u>2</u>	Row Alignment: 1=Straight 2=Slight	ly Curved 3=Spiral		2		
		cm Shank Length		 ;			
	1.	Ear Taper: 1=Slight 2=Average 3=	Extreme	*	2		
App	lication Va	ariety Data			Standard Inbred Dat	a	
NOT	E: Use cha	art on first page to choose color codes for traits	s	·		·	

Application Var	iety Data		Page 3	Standard Inbred Da	ata	
8. KERNEL	(Dried):	Standard Devia	tion Sample Size	·	Standard Deviation	Sample Size
<u>1 0.7</u>	mm Kernel Length	<u>.79</u>	<u>15</u>	10.0	<u>.86</u>	<u>15</u>
<u>0 7.9</u>	mm Kernel Width	<u>.40</u>	<u>15</u>	<u>0 8.3</u>	<u>.55</u>	<u>15</u>
<u>0 4</u> . <u>8</u>	mm Kernel Thickness	<u>.31</u>	<u>15</u>	04.3	<u>.60</u>	<u>15</u>
<u>71.2</u>	% Round Kernels (Shape Grade)	3.3	<u>15</u>	<u>5 1.3</u>	2.9	15
1	Aleurone Color Pattern: 1=Homoz			1	_	
* <u>18</u>	Aleurone Color (Munsell code CC		· ———		de COLORLESS)	
l	Hard Endosperm Color (Munsell c			08 (Munsell co		
* <u>08</u>			0. No	1	de <u>2.517710</u>)	
* <u>03</u>	Endosperm Type: 1=Sweet (sul)	•		03		
	4=High Amylose Starch 5=Waxy 8 8=Super Sweet (se) 9=High Oil 1		i /= ⊓igii ⊑ysiile			
	gm Weight per 100 Kernels (unsize					
	giii weigiii per 100 Kemeis (unsize		0	 -		
9. COB:		Standard Deviation	Sample Size		Standard Deviation	•
* 1 <u>9.4</u>	mm Cob Diameter at mid-point	<u>1.8</u>	<u>15</u>	244	<u>1.9</u>	<u>15</u>
14	Cob Color (Munsell code 10R4/8)			19 (Munsell co	de <u>5Y9/1</u>)	
10. DISEASE I	RESISTANCE (Rate from 1 (most suscept	ible) to 9 (most resistant)	:			
Leave blank if r	not tested: leave Race or Strain Options bla	ank if polygenic):				
A. Leaf Bligh	nts, Wilts, and Local Infection Diseases					
_ Anthraci	nose Leaf Blight <i>(Colletotrichum gran</i>	ninicola)		_	·	
_ Commo	n Rust (<i>Puccinia sorghi)</i>			_		
_ Commo	n Smut <i>(Ustilago maydis)</i>			_		
9 Eyespot	(Kabatiella zeae)			_	•	
_ Goss's \	Wilt (Clavibacter michiganense spp. i	nebraskense)		-		
<u>8</u> Gray Le	af Spot (Cercospora zeae-maydis)			_	•	
_ Helminti	nosporium Leaf Spot (Bipolaris zeico	la) Race		_ Race		
. <u>8</u> Northerr	Leaf Blight (Exserohilum turcicum)	Race		_Race		
1 —	n Leaf Blight (Bipolaris maydis) Rac	e		_Race		
_ Souther	n Rust (Puccinia polysora)			-		
_ Stewart'	s Wilt <i>(Erwinia stewartii)</i>			-		
_ Other (S	Specify)					•
B. Systemic Dis	seases					
_ Corn Leth	nal Necrosis (MCMV and MDMV)			_		
-	ut (Sphacelotheca reiliana)			-		
_	lorotic Dwarf Virus(MCDV)			_		
. –	lorotic Mottle Virus (MCMV)					
-	varf Mosaic Virus (MDMV) Strain	a aamhi)		_Strain		
	Downy Mildew of Corn (Peronosclerospon pecify)	a sorgrii)		-		
	(CONY)					
C. Stalk Rots	nno Stally Bot (Calletotriahum graminiania)			ľ		
i –	ose Stalk Rot (Colletotrichum graminicola) Stalk Rot (Stenocarpella maydis)			-		
l – ·	Stalk Rot (Fusarium moniliforme)			-		
(-	a Stalk Rot <i>(Gibberella zeae)</i>			\ <u></u>		
1 -	pecify)				·	
D. Ear and Kerr			•			
1	is Ear and Kernel Rot (Aspergillus flavus)		•	_		
	Ear Rot (Stenocarpella maydis)			1_	•	
	Ear and Kernel Rot (Fusarium moniliforme	·)	•	_ ·		
_ Gibberella	a Ear Rot (Gibberella zeae)			l _		
_ Other (Sp	pecify					
Application Var	iety Data			Standard Inbred	Data	
NOTE: Use Ch	art on first page to choose color codes for	color traits				

Application Variety Data	Page 4	Standard Inbred Data		
11. INSECT RESISTANCE (Rate from 1 (most susceptible) to 9 (most resistant)	•		004000	
leave blank if not tested):		1 . 2	2001000	02
Banks Grass Mite (Oligonychus pratensis) Standard Deviation	Sample Size	_ '	Standard Deviation Sa	mple Size
_ Corn Earworm (Helicoverpa zea)				
Leaf-feeding	•	-		
Silk feeding:	·	-		
mal make k				
mg Larval wt.	 .			
Ear Damage		-		
_ Corn Leaf Aphid (Rhopalosiphum maidis)		-		
_ Corn Sap Beetle (Carpophilus dimidiatus)		-		
European Corn Borer (Ostrinia nubilalis)				
1 st Generation (Typically Whorl Leaf Feeding)		-		
2 nd Generation (Typically Leaf Sheath-Collar Feeding)		-	•	
Stalk Tunneling:				
cm tunneled plant				
Fall Armyworm (Spodoptera frugiperda)		-		
Leaf Feeding] -		
Silk Feeding:				
mg larval wt.				
_ Maize Weevil (sitophilus zeamaize)		 -		
_ Northern Rootworm (Diabrotica barberi)		-		
Southern Rootworm (Diabrotica undecimpunctata)		-		
Southwestern Corn Borer (Diatraea grandiosella)				
_ Leaf Feeding		-		
Stalk Tunneling:				
cm tunneled/plant				
Two-spotted Spider Mite (Tetranychus urticae)		-		
_ Western Rootworm (Diabrotica virgifera virgifera)		_		
Other (Specify)				
12. AGRONOMIC TRAITS:				
_ Stay Green (at 65 days after anthesis) (Rate on a scale from 1=Worst		-		
to 9=Excellent.)				
%Dropped Ears (at 65 day anthesis) %Pre-anthesis Brittle Snapping				
%Pre-anthesis Root Lodging		 -		
%Post-anthesis Root Lodging (at 65 days after anthesis)				
Kg/ha Yield of Inbred Per Se (at 12-13% grain moisture)		 .		
13. MOLECULAR MARKERS: (0=data unavailable 1=data available but not supppl	ied 2=data supplied)			11
l 🕠	APD's		JUS	5/20/02
REFERENCES:			· · · · · · · · · · · · · · · · · · ·	
Butler, D.R. 1954. A System for the Classification of Corn Inbred Lines. PhD Thesis, Ohio State Uni Emerson, R.A., G.W. Beadle, and A.C. Fraser. 1935. A Summary of Linkage Studies in Maize. Corn Farr, D.F., G.F. Billis, G.P. Chamuris, A.Y. Rossman, 1989. Fungi on Plant and Plant Products in the St. Paul, MN. Inglett, G.E. (Ed.) 1970. Corn: Culture, Processing, Products. Avi Publishing Company, Westport C Jugenheimer, R.W. 1976. Corn: Improvement, Seed Production, and Uses. John Wiley & Sons, New McGee, D.C. 1988. Maize Diseases. APS Press, St. Paul, MN. 150 pp Munsell Color Chart for Plant Tissues. Macbeth, PO Box 230, Newburgh, N.Y. 12551-0230 The Mutants of Maize. 1968. Crop Science Society of America. Madison, Wl. Shurtleff, M.C. 1980. Compendium of Corn Diseases. APS Press, St. Paul, MN. 105 pp Sprague, G.F., and J.W. Dudley (Editors). 1988. Corn and Corn Improvement, Third Edition. Agronistringfield, G.H. Maize Inbred Lines of Ohio. Ohio A.E.S., Bul. 831, 1959.	nell A.E.S., Mem. 180. e United States. The Ameri T. w York.			·
U.S. Department of Agriculture. 1936, 1937, Yearbook.				
COMMENTS (eg. State how heat units were calculated, standard inbred se	eed source, and/or w	here data was collected.	Continue in Exhibit D):	
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·				
	•			
	*			
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Additional Description of Inbred NR401

Exhibit D:

NR401 is a medium season field corn inbred that flowers approximately 45 heat units later than LH185. It can be used as either a pollinator or female in a production field.

NR401 has shown excellent yield potential in hybrid combinations involving stiff stalk inbred lines. Hybrids involving NR401 are adapted to the 100-107 day maturity regions, and in particular northern Iowa, northeastern Nebraska, and southeastern South Dakota. NR401 contributes excellent disease tolerance to hybrids.

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE	The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C 552a) and the Paperwork Reduction Act (PRA) of 1995.		
EXHIBIT E STATEMENT OF THE BASIS OF OWNERSHIP	Application is required in order to determine if issued (7 U.S.C. 2421). Information is held col 2426).	a plant variety protection certificate is to be nfidential until certificate is issued (7 U.S.C.	
NAME OF APPLICANT(S) The J. C. Robinson Seed Company	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME NR401	
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) The J. C. Robinson Seed Company 100 J. C. Robinson Blvd PO Box A Waterloo, NE 68069	5. TELEPHONE (include area code) (402)289-0252 7. PVPO NUMBER 2001 0000	6. FAX (include area code) (402)779-4370	
8. Does the applicant own all rights to the variety? Mark an "X" in appropria	te block. If no, please explain.	≣S □NO	
9. Is the applicant (individual or company) a U.S. national or U.S. based co If no, give name of country	mpany?	s 🗆 NO	
a. If original rights to variety were owned by individual(s), is (are) the original rights to variety were owned by a company(ies), is(are) the YES NO If no 11. Additional explanation of ownership (if needed, use reverse for extra sp	o, give name of country original owner(s) a U.S. based company? o, give name of country ace):		
The variety for which Plant Variety Protection is hereby sought was devel By agreement between the employee and The J. C. Robinson Seed Com- while employed by The J. C. Robinson Seed Company are assigned to T employee.	pany all rights to any invention, discovery,	or development made by the employee	
PLEASE NOTE:			
Plant variety protection can be afforded only to owners (not licensees) who	•		
 If the rights to the variety are owned by the original breeder, that person country which affords similar protection to nationals of the U.S. for the sa 		V member country, or national of a	
2. If the rights to the variety are owned by the company which employed the UPOV member country, or owned by nationals of a country which affords	e original breeder(s), the company must be s similar protection to nationals of the U.S.	U.S. based, owned by nationals of a for the same genus and species.	
3. If the applicant is an owner who is not the original owner, both the original	d owner and the applicant must meet one o	of the above criteria.	
The original breeder/owner may be the individual or company who directed definition.	ed final breeding. See Section 41(a)(2) of t	he Plant Variety Protection Act for	

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THE J.C. ROBINSON SEED CO.



Exhibit E. State of the Basis of Applicant's Ownership - NR401

The variety for which Plant Variety Protection is hereby sought was developed by Duane Grensteiner, an employee of The J. C. Robinson Seed Company. By agreement between the employee and The J. C. Robinson Seed Company all rights to any invention, discovery, or development made by the employee while employed by The J. C. Robinson Seed Company are assigned to The J. C. Robinson Seed Company with no right of any kind retained by the employee.